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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,027	03/30/2004	Larry Spencer	4590-059A	2789

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EXAMINER
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NGUYEN, THU V

ART UNIT	PAPER NUMBER
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3661

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/812,027

Applicant(s)

SPENCER ET AL.

Examiner

Thu Nguyen

Art Unit

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 30 July 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3,5-31 and 33-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-31 and 33-44 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/30/04.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

The preliminary amendment filed on July 30, 2004 has been entered. By this amendment, claims 2, 4, 32 have been canceled, claims 40-44 have been added and claims 1, 3, 5-31, 33-44 are now pending in the application.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 3, 5-17, 30-31, 33-38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamiya et al (U.S Patent No. 5,917,435) in view of Kodama (JP 10-213443) and further in view of Hollenberg (U.S Patent No. 6,091,956).

As per claim 1, Kamiya discloses a vehicle navigation system which comprises: a computer module 2 (fig.1) including a processor 20 (fig.1) and a map database 21 (fig.1) (col.9, lines 31-34); a docking station (col.13, lines 27-31). Kamiya does not explicitly disclose a docking station which is matable with the computer module station, and including at least a navigation sensor matable to the computer module station. However, Kodama teaches including a removable navigation sensor to a removable module (paragraph [0006], [0011], [0029], and [0039]), and Hollenberg discloses a docking station 40 (fig.7) which is matable with the

computer module 2d (fig.7) (col.19, lines 63-67; col.20, lines 1-24). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the inertial sensor and the docking station of Hollenberg to the system of Kamiya in order to provide navigation data when the device is removed from the vehicle and to provide support to a specific housing of the navigation processor.

As per claim 3, Kamiya does not explicitly teach including a GPS receiver to the computer module. However, Kamiya teaches including the GPS receiver in a removable module would have been known (fig.30; col.1, lines 14-23), Kamiya further teaches removing several navigation components from the vehicle (col.12, lines 15-18). Further, Kodama teaches including a GPS receiver in the same computer module (paragraph [0011]-[0012]). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the GPS receiver to the removable computer module of Kamiya as known in the prior arts in order to provide navigation to the user when the removable unit is detached from the vehicle.

As per claim 5-6, Kamiya teaches a first and a second electric connector (col.18, lines 8-20; col.13, lines 35-53).

As per claim 7, Kamiya does not disclose connecting the first electrical connector to a GPS receiver. However, Hollenberg teaches providing electrical connection to the GPS receiver

on the computer module (col.20, lines 4-11). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to provide electrical connection with the GPS receiver when the GPS receiver is in the computer module in order to facilitate data communication between the GPS receiver and the antenna.

As per claim 8-9, Kamiya teaches including an display operator interface module connected to the second connector (col.18, lines 8-20).

As per claim 10, Kamiya teaches fixedly mounting a docking station in a first vehicle (col.4, lines 19-24).

As per claim 11, Kamiya teaches including means for determining a position of the navigation system relative to the map database (col.13, lines 18-24; col.4, lines 1-13).

As per claim 12, Kamiya does not teach determining a route from a beginning point to an ending point. However, determining a route from a beginning point to a destination point would have been well known. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to allow the user to obtain navigation help by inputting the source and destination point to the computer module of Kamiya in order to provide the user help when the source and destination point is known.

As per claim 13-15, 30-31, 33, refer to discussion in claim 1, 3-5, 9, 11-12 above.

As per claim 16-17, Kamiya in view of Hollenberg do not disclose providing a second docking station that is fixedly mounted in a second vehicle and the operator interface module is selectively connectable to the first or the second docking station. However, Kamiya teaches providing a docking station on a vehicle and an operator interface removably connectable to the docking station (col.11, lines 46-51; col.12, lines 11-18; col.18, lines 8-20). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement a docking station of Kamiya to a second vehicle and selectively connect the removable operator interface of Kamiya to the first or the second vehicle. Since implementing a duplicate device to another vehicle and connecting a movable device to another vehicle requires only routine skill in the art.

As per claim 34, refer to discussion in claim 16-17 above.

As per claim 35, refer to discussion in claims 1 and 30 above. Further, automatically calibrating a sensor when the sensor is first implemented in a vehicle would have been well known.

As per claim 36-38, refer to discussion in claim 4, 9, and 34 above.

3. Claims 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamiya et al (U.S Patent No. 5,917,435) in view of Kodama (JP 10-213443) and further in view of Avitan et al (U.S Patent No. 4,942,529).

As per claim 18, refer to discussion in claim 1, 2-3 above. Kamiya does not disclose a computer module that includes first, and second vehicle data; and the computer module utilizing the first or second vehicle data when the computer module is installed in the first or the second vehicle data, respectively. However, Avitan teaches a computer module that uses the first or the second vehicle data when the module is installed in the first or the second vehicle, respectively (col.3, lines 43-53). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include vehicle data of several vehicles to the computer module of Kamiya and to use suitable data depending on which vehicle the computer module is installed. The motivation for this would have been to facilitate implementing the control module to different vehicles as motivated by both Kodama (paragraph [0039]) and Avitan in col.3, lines 43-46.

As per claim 19, Avitan teaches providing a user interface for the user to input regarding whether to use the first vehicle data or the second vehicle data (col.3, lines 51-53).

As per claim 20, Kamiya teaches a display interface 221 (fig.1). Kamiya and Avitan do not explicitly disclose including user operable switches for selecting between the first and the second vehicle data. However, Avitan teaches providing manually operable selection means for the user to select between the first and the second vehicle data (col.3, lines 51-53). Further using

switches as inputs for selecting one from a plurality of function would have been well known to a person of ordinary skill in the art at the time the invention was made. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to include the well known switches to the module of Avitan in order to facilitate selection between the first and the second group of data.

As per claim 21, Avitan does not teach that the first and the second vehicle data that includes information regarding the orientation of the computer module. However, storing the orientation of the computer module to track the position of a vehicle would have been well known. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to store the orientation of the vehicles in the first and second memory area the computer module of Avitan in order to facilitate tracking the position of the vehicles.

As per claim 22, Avitan teaches propagating first or second vehicle data when the computer module is used in the first or the second vehicle respectively (co.3, lines 51-52, 59-64). Avitan does not teach propagate position of the vehicle based on the first and the second vehicle data. However, transmitting position of a vehicle based on the position data of the vehicle would have been well known. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to transmit the position of the vehicles on which the computer module of Kamiya is installed in order to provide accurate navigation to the driver of the vehicle.



4. Claims 23, 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamiya et al (U.S Patent No. 5,917,435) in view of Kodama (JP 10-213443) and further in view of Ito et al (U.S Patent No. 5,889,337).

As per claim 23, 40, refer to claim 1 above. Kamiya teaches removably securing a CPU in a first vehicle (col.18, lines 14-17); removing the CPU from the first vehicle (col.11, lines 46-51).

Kamiya does not teach removably securing the CPU in a second vehicle. However, Ito teaches implementing a compatible cavity with universal connector to simplified assembling process (col.1, lines 66-67; col.2, lines 1-7; col.3, lines 31-37, lines 12-15). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to implement the cavity and the electric circuit of Ito to the vehicles in order to allow the CPU of Kamiya to be easily removably installed in different vehicles.

Kamiya in view of Ito does not teach removing and implementing the inertia sensor in different vehicles. However, Kamiya implies that other components in a vehicle could obviously be movable (col.12, lines 15-18), and Kodama explicitly teaches including a removable inertia sensor to the removable computer module (paragraph [0006], [0011], , [0029], and [0039]). It would have been obvious to a person of ordinary skill in the art at the time the invention was made to remove and to implement the inertia sensor of Kamiya to/from one vehicle to another vehicle as taught by Kodama in order to facilitate implementing the navigation module to different vehicle as motivated by Kodama in paragraph [0039].

5. Claims 24-28, 39, 41-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamiya et al (U.S Patent No. 5,917,435) in view of in view of Kodama (JP 10-213443) and further in view of Ito et al (U.S Patent No. 5,889,337) and Avitan et al (U.S Patent No. 4,942,529).

As per claim 24-27, Kamiya teaches determining the position of a vehicle based upon data from the inertial sensor (col.1, lines 50-53; col.2, lines 10-14). Kamiya does not teach storing and propagating position data of the first or the second vehicle. However, refer to discussion in claim 22 above for the claim limitation in view of Avitan. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to store and propagate data depending on the specific vehicle in which the computer module is installed as taught by Avitan to the system of Kamiya in order to facilitate installation of a module to different vehicle as motivated by Avitan in col.3, lines 59-64).

As per claim 28, Avitan teaches manually selecting whether to use the first vehicle data of second vehicle data via user input device (col.3, lines 51-53).

As per claim 39, 41-42, refer to discussion in claim 26-28 above.

As per claim 43, Kamiya in view of Ito do not teach connecting the GPS antenna to the roof of a vehicle and connecting the GPS receiver to the antenna. However, including a detachable antenna to a vehicle, and connecting the antenna to the GPS receiver would have been

well known. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to use removable antenna and to attach the antenna to the GPS receiver of Kamiya in order to use one antenna for multiple devices.

As per claim 44, Kamiya in view of Ito do not explicitly disclose connecting the receiver to the power supply of the vehicles. However, Kamiya discloses connecting the removable module to a vehicle power supply (col.13, lines 35-53), further, the receiver requires electric power to be active would have been known. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to connect the receiver to the power supply of the vehicle of Kamiya when the receiver is incorporated in the detachable module in order to provide proper electrical power to the receiver to be active.

6. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kamiya et al (U.S Patent No. 5,917,435) in view of Kodama (JP 10-213443) and further in view of Ito et al (U.S Patent No. 5,889,337), Avitan et al (U.S Patent No. 4,942,529) and Hollenberg (U.S Patent No. 6,091,956).

As per claim 29, refer to discussion in claim 1 above. Kamiya does not explicitly disclose mating one inertial sensor with a docking station. However, Kodama teaches the claimed limitation (paragraph [0006], [0011], [0029], and [0039]).

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The ground of rejection, which was established in the last office action issued on December 30, 2003 in the application 09/692,295, is maintained herein, accordingly, **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

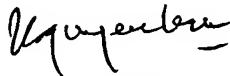
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thu Nguyen whose telephone number is (703) 306-9130. The examiner can normally be reached on T-F (7:30-6:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (703) 305-8233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 3661

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

January 20, 2005

  
**THUY V. NGUYEN**  
**PRIMARY EXAMINER**